

Notice of Allowability

Application No.

09/995,821

Examiner

Jennifer N. To

Applicant(s)

GOIFFON, SERGE

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/20/2006 & phone interviewed 11/28/2006.
2. ☒ The allowed claim(s) is/are 14,15,17-23,25-27 and 29, now renumbered as 1-13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

[Signature]
SUPERVISORY PATENT EXAMINER
INNOVATION CENTER 2100

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Robert Krebs on 11/28/2006.

3. The claims had been amended as the following:

i. Replace claim 14 with:

14. A method for providing a real time operating process for multiple tasks, said process utilizing a plurality of time sensitive observation windows wherein said tasks are processed when in said observation windows, the method comprising:

allotting a time quota in a first observation window to a first task having a high priority designation;

allotting a remaining time quota in said first observation window to remaining tasks having priority designations lower than said first task where as at least a portion of each of said remaining tasks is guaranteed to be processed during said remaining time quota; and

calculating an amount of time said first task is processed in said first observation window;

sanctioning said first task to a second observation window when said calculated amount of time exceeds said time quota in said first observation window, wherein said sanctioning further comprises:

switching from the first task to another task, wherein the switching includes:

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dating an event associated with the switching by supplying a value from a global software counter, wherein the value is adjusted by adding time passed since a last clock pulse from a material counter;

recording starting time of the another task;

calculating time spent by the another task during said first observation window; and

sanctioning said another task if the time spent by said another task is longer than the maximum allocated time in said first observation window.

ii. Replace claim 15 with:

15. Real time multi-task operating method in an avionic computer, the method comprising:

defining a set of fixed duration observation windows;

allocating a maximum execution duration time for each task in a plurality of tasks during each observation window;

calculating time used by each task during each observation window; and

sanctioning a task which exceeds the allocated maximum execution duration time in an observation window, wherein the sanctioned task returns to a central resource unit during a subsequent observation window, and wherein said sanctioning further comprises:

switching from the task to another task, wherein the switching includes:

dating an event associated with the switching by supplying a value from a global software counter, wherein the value is adjusted by adding time passed since a last clock pulse from a material counter;

recording starting time of the another task;

calculating time spent by the another task during said observation window; and

sanctioning said another task if the time spent by said another task is longer than the maximum allocated time in said observation window.

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iii. Replace claim 29 with:

29. A real time multi-task operating system executed by an avionic computer comprising:

a surveillance module which enables a surveillance parameterization, the surveillance module configured to date events by supplying a value from a global software counter, wherein the value is adjusted by adding time passed since a last clock pulse from a material counter, and control use of a central resource unit, the surveillance module capable of sanctioning a task and providing information on a status of the task;

a functions interface accessible by a supervision task;

a time management unit configured to receive message from the surveillance module; and

a scheduler configured to guarantee a desired amount of processing time for a lower priority task in each observation window, wherein a particular task is sanctioned to a subsequent processing window when a time quota allotted to the particular task is exceeded.

4. The following is an examiner's statement of reasons for allowance:

The prior art of records and the newly cited prior arts teach/suggest a method for providing a real time operating process for multiple tasks by utilizing a plurality of time sensitive observation windows, wherein said tasks are processed based upon a time quota allotted in each of said observation windows, calculating the amount of time spend by each of the tasks in each of said observation windows, sanctioning a task to a subsequent observation window by switching the task to another task when the calculated amount of time spend by said task exceeded the time quota. However, the prior art of records and the newly cited prior arts fail to teach/suggest in detail that the taught sanctioning the task involved dating an event associated with the switching by

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supplying a value from a global software counter, wherein the value is adjusted by adding time passed since a last clock pulse from a material counter, recording starting time of the another task, and calculating time spent by the another task during each of said observation windows as recited in the claims. Therefore, the claims are allowable over the prior arts record and the newly cited prior arts.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer N. To whose telephone number is (571) 272-7212. The examiner can normally be reached on M-T 6AM- 3:30 PM, F 6AM- 2:30 PM.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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